

**Commonwealth of Kentucky  
Division for Air Quality**

**PERMIT APPLICATION SUMMARY FORM**

Completed by: Luis D.Fuentes

GENERAL INFORMATION:

Name:	Ceradyne, Inc.
Address:	2416 Merchant Street. Lexington, KY 40511
Date application received:	11/1/2006
SIC Code/SIC description:	3999, Manufacturing Industries, Not Elsewhere Classified
Source ID:	21-067-00180
Source A.I. #:	55753
Activity ID:	APE20060002
Permit:	F-06-072

APPLICATION TYPE/PERMIT ACTIVITY:

<input type="checkbox"/> Initial issuance	<input type="checkbox"/> General permit
<input type="checkbox"/> Permit modification	<input checked="" type="checkbox"/> Conditional major
__Administrative	<input type="checkbox"/> Title V
__Minor	<input type="checkbox"/> Synthetic minor
__Significant	<input checked="" type="checkbox"/> Operating
<input type="checkbox"/> Permit renewal	<input type="checkbox"/> Construction/operating

COMPLIANCE SUMMARY:

<input type="checkbox"/> Source is out of compliance	<input type="checkbox"/> Compliance schedule included
<input type="checkbox"/> Compliance certification signed	

APPLICABLE REQUIREMENTS LIST:

<input type="checkbox"/> NSR	<input type="checkbox"/> NSPS	<input type="checkbox"/> SIP
<input type="checkbox"/> PSD	<input type="checkbox"/> NESHAPS	<input type="checkbox"/> Other
<input type="checkbox"/> Netted out of PSD/NSR	<input type="checkbox"/> Not major modification per 401 KAR 51:001, 1(116)(b)	

MISCELLANEOUS:

- ☐ Acid rain source
- ☐ Source subject to 112(r)
- ☐ Source applied for federally enforceable emissions cap
- ☐ Source provided terms for alternative operating scenarios
- ☐ Source subject to a MACT standard
- ☐ Source requested case-by-case 112(g) or (j) determination
- ☐ Application proposes new control technology
- ☒ Certified by responsible official
- ☒ Diagrams or drawings included
- ☐ Confidential business information (CBI) submitted in application
- ☐ Pollution Prevention Measures
- ☐ Area is non-attainment (list pollutants):

**EMISSIONS SUMMARY:**

<b>Pollutant</b>	<b>Actual (tpy)</b>	<b>Potential (tpy)</b>
PM/PM <sub>10</sub>	0.604	66.273
SO <sub>2</sub>	0.044	0.044
NO <sub>x</sub>	7.35	7.35
CO	6.14	6.14
VOC	7.73	141.8
Lead	0.08	0.08
Benzene	0.00014	0.00014
Dichlorobenzene	0.00008	0.00008
Formaldehyde	0.005	0.005
Hexane	0.12	0.12
Naphthalene	0.00004	0.00004
Toluene	0.00020	0.00020
Source wide HAPs	0.125	0.125

**SOURCE DESCRIPTION:**

Ceradyne, Inc. facility, located in Lexington, KY has two process areas: ceramic forms and hot press (armor plates). Ceradyne operates six different manufacturing processes on site: Heating curing and Incinerator; Grinding Booth; Shot Blast; Power Preparation; Mechanical Pressing; and Binder Removal.

State Minor Permit S-05-178 was issued to Ceradyne on October 24, 2005 for the operations listed above. A permit revision S-05-178R1 was completed on December 12, 2005 due to an increase of production rate on the Hot Press Line.

Ceradyne has submitted an application for installing a new fourth armor plate line LX4 in the hot press process area. They also plan to purchase and install the necessary support equipment for upgrading the armor plate line LX3- mini up to the same capacity as armor plate lines LX1 and LX2. The capacity of the ceramic line does not change as a result of adding line LX4.

**EMISSIONS AND OPERATING CAPS DESCRIPTIONS:**

The facility's uncontrolled emissions of VOC may exceed 100 tons per year. The potential capacity to emit PM and HAP for all processes will not change the facility's status as a minor source of air pollutant. The incinerator shall be operating at all times to keep VOC emissions under major source

threshold and preclude the applicability of 401 KAR 52:020, *Title V permits*. See Section B of the permit for operating and emission limits pertaining to the individual emission points.

**OPERATIONAL FLEXIBILITY:**

NA